

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-223703  
 (43)Date of publication of application : 11. 08. 2000

(51)Int. Cl.

H01L 29/78

H01L 21/338

H01L 21/28

H01L 21/8238

H01L 27/092

(21)Application number : 11-022688  
 (22)Date of filing : 29. 01. 1999

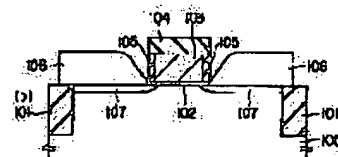
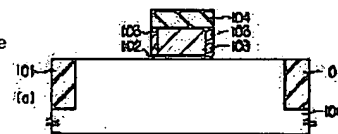
(71)Applicant : TOSHIBA CORP  
 (72)Inventor : SUGURO KYOICHI  
 MATSUO KOJI  
 SAITO TOMOHIRO

## (54) SEMICONDUCTOR DEVICE AND ITS MANUFACTURE

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a semiconductor device for preventing contamination due to the RIE treatment of the surface of a semiconductor substrate, and for controlling the film thickness of an elevated source drain diffused layer, and for improving the reliability of a gate insulating film.

SOLUTION: A silicon nitride film 102 is formed on a semiconductor substrate 100, and a polysilicon 103 is selectively formed on the silicon nitride film 102. A silicon oxide film 104 is formed on the polysilicon 103, and silicon oxide films 105 are formed on the side faces of the polysilicon 103. Afterwards, the chemical treatment of phosphoric acid is carried out so that the surface of the semiconductor substrate 100 can be exposed by removing the silicon nitride film 102 without forming any contaminated layer on the surface of the semiconductor substrate 100.



## LEGAL STATUS

[Date of request for examination] 24. 01. 2003  
 [Date of sending the examiner's decision of rejection]  
 [Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]  
 [Date of final disposal for application]  
 [Patent number]  
 [Date of registration]  
 [Number of appeal against examiner's decision of rejection]  
 [Date of requesting appeal against examiner's decision of rejection]  
 [Date of extinction of right]